

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

Title V/Synthetic Minor draft permit, No. V-99-067

WKEC-R. D. GREEN STATION

Henderson, Kentucky 42419-1518

DANNY BALLARD

SOURCE DESCRIPTION, CONTROL EQUIPMENTS & CONSTRUCTION DATE:

- E. Unit 01: Pulverized coal-fired, dry-bottom, wall-fired unit equipped with electrostatic precipitator, flue gas desulfurization unit and low NO_x burners commenced construction on June 1976. Secondary fuel is petroleum coke.

- E. Unit 02: Pulverized coal-fired, dry-bottom, wall-fired unit equipped with electrostatic precipitator, flue gas desulfurization unit and low NO_x burners commenced construction on June 1976. Secondary fuel is petroleum coke.

- E. Unit 03: Coal handling operations include receiving hopper, magnetic separators, vibratory feeders, coal stockpiles, and haul roads commenced construction on 1975.

- E. Unit 04: Coal crushing and processing includes barge unloading, secondary crusher and conveyors commenced construction on 1975.

- E. Unit 05: Lime conveying and storage operations include conveyors and storage silos commenced construction on 1975.

- E. Unit 06: Lime handling operations include barge unloading, pug mills and slaker commenced construction on 1975.

- E. Unit 07: Ash and sludge handling operations include flyash truck loadout, sludge conveyors, sludge stockpile, sludge truck loadout, and haul roads commenced construction on 1975.

- E. Unit 08: Two cooling towers commenced construction on 1975.

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REGULATION APPLICABILITY:

All the applicable regulations to the emission units are listed in the permit. The following regulations are not applicable based on definition or size of emission units, or applicability date of regulations.

Regulations not applicable to emissions units 1 and 2 due to applicability date or size of unit:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable to an emission unit with a capacity of more than 250 mmBTU per hour and commenced before August 17, 1971.

Regulation 401 KAR 59:016, New electric utility steam generating units, incorporating by reference 40 CFR 60 Subpart Da, Standards of performance for electric utility steam generating units applicable to an emission unit with a capacity of more than 250 mmBTU per hour and commenced on or after September 19, 1978.

Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Db, Standards of performance for industrial-commercial-institutional steam generating units with a maximum heat input capacity than 100 mmBTU/hour and constructed after June 19, 1984.

Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units with a design maximum heat input capacity of 100 mmBTU/hour or less and greater than or equal to 10 mmBTU/hour and constructed after June 9, 1989.

Regulation not applicable to emissions unit 3 (coal handling):

Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Y, Standards of performance for coal preparation plants.

Regulation not applicable to emissions units 5 and 6 (lime/limestone handling):

Regulation 401 KAR 59:310, New non-metallic mineral processing plants (40 CFR 60, Subpart OOO).

Regulations not applicable to Unit 8 (cooling towers):

Regulation 401 KAR 63:002, which incorporates by reference the federal regulation 40 CFR 63, Subpart Q, National emission standards for hazardous air pollutants for industrial process cooling towers.

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COMMENTS:

- This source is subject to acid rain requirements and the Division has issued Phase II acid rain permit for this facility; Permit Number: A-98-007.
- The permittee may assure compliance with sulfur dioxide allowable standards for emissions units 1 and 2 by using sulfur dioxide continuous emission monitoring data.
- Emissions units 1 and 2 are equipped with a sulfur dioxide scrubbers which make it difficult to read opacity using Reference Method 9. Thus, the permittee may assure compliance with the opacity standards for these emissions units using data collected by COM in lieu to Reference Method 9.
- The permittee will be required to conduct at least two particulate performance test for emissions units 1 and 2 to demonstrate compliance with allowable standards within the term of this permit. The permittee may assure continuing compliance with particulate standard using COM data as an indicator as described in the permit. Additional stack tests for particulate may be required under the circumstances described in the permit.
- Emissions units 3, 6, 7, and 8 are subject to Regulation 401 KAR 63:010, Fugitive emissions and are considered to be in compliance when using control measures required by the regulation.
- Emissions unit 5, Lime conveying and storage operations is subject to Regulation 401 KAR 59:010, New process operations. The permittee may assure compliance with the particulate mass and opacity standards by assuring proper operation of the baghouses. Proper operation of the baghouses can be assured by daily qualitative observation of stack emissions. If visible emissions from any stack during visual observations are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.
- Emissions unit 4 is subject to Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Y, Standards of performance for coal preparation plants. The permittee may assure compliance with the opacity standard by assuring proper operation of the baghouses. Proper operation of the baghouses can be assured following the procedures as discussed above.
- The three hour averaging time associated with the particulate standard for emissions units 1, 2, and 5 is applicable during compliance demonstration through performance test if one is required by the Division.
- Emissions unit 8 is not subject to any applicable regulations.
- The permittee shall submit a compliance assurance monitoring (CAM) plan for emissions units 1 and 2 with an application for significant revision of those emissions units or with the application for Title V permit renewal.

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- On August 30, 1999, the Division for Air Quality received a formal objection from the U.S. EPA - Region IV regarding the issuance of the Title V permit for WKE - R.D. Green Station. Specifically, EPA concluded that the burning of petroleum coke, as proposed, is considered a modification pursuant to the prevention of significant deterioration (PSD) rules. The Division for Air Quality has determined that the WKE - R.D. Green Station and the WKE - Reid/Henderson Station are one source as defined by Regulations 401 KAR 50:035, Permits, and 401 KAR 51:017, Prevention of significant deterioration of air quality. Therefore, in order to preclude applicability of Regulation 401 KAR 51:017, the total sulfur dioxide emissions from emissions units 1 and 2 at the R.D. Green Station and emissions units 1, 2 and 3 at the Reid/Henderson Station have been limited to not exceed 74,331 tons during any consecutive twelve month period.